

# Investigating on the E-Business Composite Elements Based on the Multi-level Undergraduate Courses Scheme Construct

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**Abstract**—In this paper we investigated on the essential composite elements of E-Business in a view of complex, marketability, internationalization perspective, and clarified the demand characteristics for various kind of E-Business professional in the different phases with the rapid evolution of E-Business in our country. Basing on the background of International Business School, with the innovative ideas of paying more attention to the basis, extending the special learning scope, emphasizing the composite elements, we constructed an E-Business courses scheme with all-round composite characteristics. This E-Business courses scheme acquired extraordinary effects in our teaching practice of undergraduate education reform.

**Keywords**—E-Business; Essential Composition Elements; Market Demands; Courses Scheme; Undergraduate Education Practice

## I. INTRODUCTION

Since the 1990s, having been experiencing from “the concept hypes” and “the froth disillusioned” period, to “the rationality” and “the pragmatism” period, the E-Business have been permeated continuously through various aspects of our social life, and became the most interested issue by theorists and Commerce. In this E-Business highly popularized internet times, the interactive mode and the communication way between enterprise and consumer, consumer and consumer, the interior of a enterprise, enterprise and enterprise, enterprise and government have been changed essentially. E-Business is not only a technological revolution or storm of “electronization”, “internetize”, “digitalization”, but also the essential and profound transform and innovation to the traditional commerce mode which have changed the survival way of all kinds of enterprises and the lifestyle of people all over the world. So we can think that the E-Business is simply not the “Internet+Commerce”, but the “Internet× Commerce” which is the highly and effectively permeation and merger of internet means and commerce mode.

In this paper we try to investigate on the essential composition elements of E-Business in a view of complex, marketability, internationalization perspective, and clarified the demand characteristics for various kind of E-Business professional in the different phases with the rapid evolution of E-Business in our country. Basing on the background of International Business School, with the innovative ideas of paying more attention to the basis, extending the special learning scope, emphasizing the composite area, we constructed an E-Business courses scheme with all-round

complex characteristics. This E-Business courses scheme acquired extraordinary effects in our teaching practice of undergraduate education reform.

## II. THE THEORETICAL ANALYSIS OF THE COMPOSITE ELEMENTS OF E-BUSINESS

Theoretically, E-Business, ie Electronic commerce, more exactly internet commerce, is refers to that Business partners carry out their commercial affairs by the means of internet. It is an effective way to reduce the business cost between governments, enterprises and customers, and to improve service efficiency and service quality. E-Business provides the real-time accessing function for the business between government, enterprises and customers by using internet, automatizes the enterprise management procedure, such as manufacture, supply, marketing, personnel affairs, financial affairs and so on. It is a commercial management mode by using internet technique to conduct consulting, commodity, service, payment, and is also the integrating application of the commercial transaction, the computer network technique, and various kinds of service software.

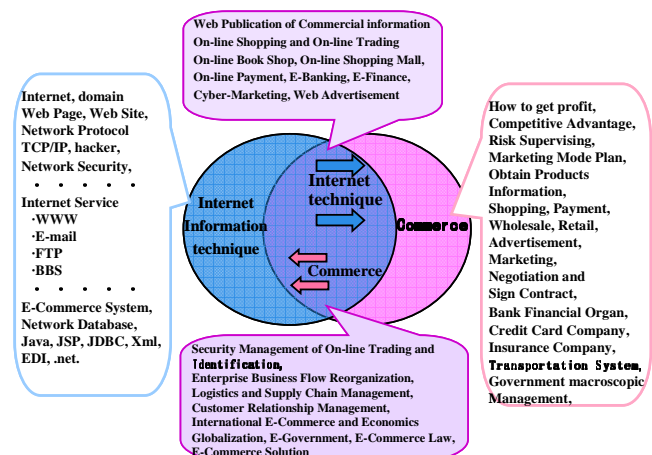


FIGURE.1 THE THEORETICAL SCOPE of E-BUSINESS

So that the E-Business subject should emphasize the composite characteristics, and the participators of E-Business affairs include governments, enterprises and customers should have sufficient knowledge about the internet technique and commercial operation to obtain higher returns with lower investment, and to create the new commercial opportunities

and commercial values for the society and enterprise. Correspondingly with the influence of the E-Business, a new branch, ie the E-Business discipline came into being in the educational field which is a new overlapping and composite discipline constituted by the Informatics, Marketing, Management, Computer Network, and Software Engineering.

### III. ANALYSIS OF THE E-BUSINESS COMPOSITE ELEMENTS DEMANDED BY THE DOMESTIC MARKET

The wave of E-Business drives businesses which are from consumer, distribution, production and other areas launched a variety of E-Business and e-government activities. E-Business talents are urgent demanded in the community. According to Beijing's human resources needs survey of 2005 e-business demanding for qualified personnel is ranked first. However, the employment rate of E-Business is not high, which 20% is significantly lower than the national university employment average rate —47%. The great demands of E-Business and low rate of employment are a pair of sharp contradictions. With careful analysis, It is not difficult to find that the reason is E-Business understanding from supply and demand. very few companies in need points out the position such as “E-Business”, but the E-Business talents are urgent needed in operations and management of network information dissemination, online mall, internet marketing, online banking, online stock, online insurance business, in Launching online Business and planning business models of tourism industry, catering industry, a variety of entertainment information services industry, and in software development of relating E-Business system, we will break down the E-Business with the different elements, and investigation of the demand conditions of E-Business related factors use of the Internet. Results shown in Table 1.

TABLE1. REQUIREMENTS STATISTICS of the E-BUSINESS COMPOSITE ELEMENTS.

Order	Searching Key Word	Zhi-Lian Employment Positions	Qian-Chen Employment Positions	528 Employment Positions	China-Outstanding Employment Positions	Total Positions
1	Software	55498	10000	9934	59673	135105
2	Database	9187	10000	8690	11292	39169
3	Web Site	8566	10000	7689	12592	38847
4	Java	6281	10000	2307	7590	26178
5	.net	4927	10000	3251	6044	24222
6	Internet	6229	10000	266	6879	23374
7	Web	4501	10000	2698	4982	22181
8	Homepage	2640	10000	3399	3590	19629
9	Solution	4038	9889	5	4495	18427
10	ASP	2772	9226	339	3252	15589
11	E-Commerce	2378	7866	2066	2345	14655
12	JSP	1886	5469	92	2653	10100
13	Cyber -Marketing	827	3463	1339	2063	7692
14	Japan Software Outsourcing	286	1176	1104	585	3151
15	JDBC	395	1137	0	569	2101
16	Talented Engineer Dispatch to Japan	103	500	383	283	1269

Data Source : 2008.01.06 Searching Result

With Quantization investigation, we can see demand for living on the top 8 are software, database, web, Java,. Net,

Internet, Web, web pages which are Internet technical factors E-Business related to E-Business. It means Skilled Workers are still needed by many companies at the current stage. This is because any E-Business systems can not do without web production, website maintenance, web-based database, and Java programming language which are inseparable from the main line of the JSP/Servlet/JavaBean, JDBC, etc. core Web application development technology, or Microsoft company net technology-based line of ASP, ODBC and other core Web application development technology. These people who have relevant skills should have some knowledge of business operations management, when facing real problems they can convert business requirements into E-Business applications, understand "How to Use a variety of Internet information technology tools" to plan, analysis, design, develop E-Business system. The Second is elements of E-Business operations management skills, which in Table 1 is at first 9,10,11 place, the people with the relevant skills should have ability of promotion and application of E-Business systems, such as network marketing, information services and so on , know how to "use all means of information technology" to do things for E-Business . Higher level of such talent is an integrated decision-making management. They mainly engage in enterprise e-business decision-making and comprehensive work. We should be dominated by management ,and understands the basics of information technology. While we can able to analyze and grasp the strategic development of E-Business characteristics and trends, as well have forward-thinking and understand "why do" E-Business.

### IV. ANALYSIS OF THE E-BUSINESS COMPOSITE ELEMENTS DEMANDED BY THE INTERNATIONAL MARKET

As E-Business wave sweeping the globe, the global service outsourcing such a special international industry, especially as a representative area of service outsourcing - software outsourcing industry has grown rapidly in China; in 2006 the MOFCOM implemented the HT engineering, strongly promoted the development of software outsourcing industry. Software Outsourcing from Japan is more than 50% growth rate per year. The statistical data from IDC, CCID and GARTNER also show that China's 60.1% outsourcing revenues is from customers in Japan , China's software outsourcing market will continue to expand in the future. It will become an important force to promote China's software outsourcing industry and bring new opportunities.

With the software outsourcing market matures, software classification and layer which are based on features of the software outsourcing industry becomes more and more clear. As shown in Table 2 software development structure related to E-Business system, software development of E-Business systems occupies an increasingly important proportion. Thus, under the wave of global E-Business driving, the pattern has great changed, The planning, analysis, design, development, maintenance of system, operation and management of systems including online marketing system, online information retrieval system, air ticket booking system, online hotel booking system, online banking, online stock system, online

insurance systems, online real estate systems, online payment system, global logistics systems, enterprise resource management system, customer relationship management systems are closely related to E-Business. software outsourcing for Japan, it has become the obstacle for developing the software outsourcing for Japan that shortage for the qualified software outsourcing talent for Japan. Under this environment, it is a new opportunity for the E-Business's students of International Business School employ in the International E-Business software outsourcing area.

TABLE 2. SOFTWARE DISTRIBUTION RELATIVE TO THE E-BUSINESS

IstLevel Classification	2ndLevel Classification	Classification Sample	Frequently-used Development Language
Application Software	Individualized Application Software (E-Commerce System)	On-line Shopping Mall, Information Management System Of Customer Relationship, On-line Reservation, Information Searching, On-line selling, Financial Affairs, Production, ERP, and E-Banking System.	Html, JSP, ASP, Java, Servlet, JDBC, SQL, .net, C#, xml
	Common Used Application Software	Table-Computing(xls), Word Editing Software, Graphics Editing Software, Internet Browser, Multimedia Player Software.	C Language C++, VC++ C#
System Software	Middle Software	Data Base Management System, Communication Control System (Including LAN), Computer Aided Software Engineering, Graphic User Interface, Developing Environment, Compiling System	C Language C++, VC++, VB, VF SQL, MySQL, Oracle...
	Base Software	Driver Control Program, Embedded System, Operation System	Assembling Language, C Language

## V. THE CONSTRUCT AND PRACTICE OF ALL-ROUND COMPOSITE E-BUSINESS TALENT EDUCATING MODE GUIDED BY THE MARKET

Through analysis the theory of elements of E-Business integration, and domestic market, international market research for the actual needs of elements of E-Business integration. We can easy to find that these needs are nor only reflect in terms of quantity, but also in the knowledge structure and level requirements, although sharp increase in demand for e-business talent because of the rapid development of E-Business. It is different for E-Business talent's demands and skill requirements in all types and levels among in different stages of development of electronic commerce. We should idea having ours own characteristic pattern of e-business talent training under the real market demand oriented, while we also need consider environmental background and running conditions where we live in, and teacher's background and advantages. Summary, we construction a curriculum of electronic Commerce which orients to the domestic and international market and has full comprehensive integration of features. As illustrated in figure 2.

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FIGURE 2 ALL-AROUND COMPOSITE E-BUSINESS COURSES SCHEME

This courses arrangement expressed the undergraduate training ideas of paying more attention to the basis, extending the special learning scope, emphasizing the composite elements. Paying more attention to the basis is refer to the undergraduates studying in the International Business School should master the base knowledge of economics, commercial economics, management, commercial operation, finance, financial accounting and so on. Extending the special learning scope is refer to the postgraduate talents should meet the variety and practicality marketing requirements, and should master the basic skill of internet, homepage designing and making, website constructing and management, web application programming and so on required by realistic society urgently. We also extend the E-Business basic technique to the application technique, and especially add the core technique of Web application program development using the Java Programming Language to our undergraduate courses, including JSP, Servlet, JavaBean, JDBC and so on. Emphasizing the composite elements is refer to the add the core contents of E-Business to the undergraduate courses on the bases of students mastered the two branches of knowledge construct above, including the core courses of the E-Business specialty, such as Introduction to the E-Business, Cyber-Marketing, E-Finance, Logistics and Supply Chain Management, Enterprise Resource Planning(ERP), International E-Business Solution, Security and Identity in E-Business System and so on. In this way, our undergraduates can comprehend the E-Business knowledge all around, and ultimately can scheme, design, develop, operate and manage the E-Business integration systems, such as on-line commercial mall, on-line payment system, logistics system, on-line banking, on-line negotiable securities trading system, on-line insurance system, on-line entertainment system, ERP system, customer relationship management system and so on.

In the uppermost layer of this courses constitution, by paying attention to the international tendency and the evolution trend, and basing our comprehension to the global service outsourcing and software outsourcing, we add the IT Commercial Japanese to the courses scheme, try to educate the qualified postgraduates for the Japan international E-Business software outsourcing business, solve the difficult problem of qualified personnel being scarce, make a feature of internationalization of E-Business specialty in the International Business School and E-Business globalization, and bring about

the completely new internationalization employment opportunity and professional career growth opportunity for our students.

## VI. CONCLUSIONS

Appeared in the end of 20 century, and evolved till today, the E-Business having been pay close attention by all over the world. Nowadays more and more enterprises and specialists recognized that combined with internet information technique and commercial management, the E-Business can breakthrough the fetter of tradition space and time veritably, optimize the business procedures of internal enterprise, and create the brand-new commercial mode and management mode.

E-Business is also a overlapping and complex area, it involves not only much newest technology of E-Business system, but also the commercial operation and management throughout, such as E-Business strategy, operation, management, commercial mode, profit mode and so on. Investigating on the essential composite elements of E-Business from various sides, we clarified the demand characteristics for various kind of E-Business professional in the different phases with the rapid development of E-Business in our country. Basing our researches we constructed an E-Business courses scheme with all-round composite characteristics. This E-Business courses scheme acquired extraordinary effects in our undergraduate educating reform practice.

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